

What is claimed is:

1. A metal polish composition comprising a chelate resin particle and an inorganic particle.

2. The metal polish composition according to Claim 1, wherein the composition further comprises a polishing accelerator.

3. The metal polish composition according to Claim 2, wherein the polishing accelerator is nitric acid or nitrate.

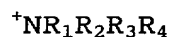
4. The metal polish composition according to Claim 2, wherein the polishing accelerator is nitric acid or ammonium nitrate.

5. The metal polish composition according to Claim 1, wherein the chelate resin particle is a chelate resin particle having a functional group containing at least one atom selected from the group consisting of an oxygen atom, nitrogen atom, sulfur atom and phosphorus atom.

6. The metal polish composition according to Claim 1, wherein the chelate resin particle is a chelate resin particle having at least one functional group selected from the group consisting of an aminocarboxylate group, aminophosphonate group and iminodiacetate group.

7. The metal polish composition according to Claim 1, wherein the functional group of the chelate resin particle is a functional group having at least one counter ion selected from the group consisting of a hydrogen ion and ammonium ions

represented by the following general formula:



wherein, R_1 , R_2 , R_3 and R_4 each independently represent a hydrogen atom, an alkyl group having 1 to 5 carbon atoms or a benzyl group.

8. The metal polish composition according to Claim 7, wherein R_1 , R_2 , R_3 and R_4 represent a hydrogen atom.

9. The metal polish composition according to Claim 1, wherein the chelate resin particle is a particle having an average particle size of 1.0 μm or less.

10. The metal polish composition according to Claim 1, wherein the zeta potential of a chelate resin particle and the zeta potential of an inorganic particle are in the same sign.

11. The metal polish composition according to Claim 1, wherein the inorganic particle is colloidal silica.

12. The metal polish composition according to Claim 1, wherein a ratio of average particle sizes (A/B) is 30 or more when the average particle size of chelate resin particles is represented by A and the average particle size of inorganic particles is represented by B.

13. The metal polish composition according to Claim 2, wherein the composition further comprises an oxidizer.

14. The metal polish composition according to Claim 13, wherein the oxidizer is hydrogen peroxide.

15. The metal polish composition according to Claim 1,

wherein an aqueous solution has a pH of 3 to 9 when made into an aqueous solution.

16. The metal polish composition according to Claim 1, wherein the metal is a metal containing tantalum.

17. The metal polish composition according to Claim 1, wherein the metal is a metal tantalum or tantalum nitride.

18. A polishing method of a metal with the metal polish composition according to Claim 1.

19. A polishing method of a metal film of a semiconductor device with the metal polish composition according to Claim 1.